

Application No. 10/701,788
Amendment "D" dated February 8, 2005
Reply to Office Action mailed January 19, 2005

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A dental treatment device comprising:
a pre-shaped, non-custom dental tray suitable for placement over at least one of a person's upper or lower dental arches, wherein the dental tray is formed from a thermoplastic material and comprises:
at least two side walls defining a trough and having a substantially horseshoe-shaped configuration at least approximately corresponding to a person's dental arch,
wherein the at least two side walls are substantially devoid of structures corresponding to the size and shape of a person's unique dentition so that the dental tray is designed to fit over a plurality of differently-sized dental arches corresponding to different people,
wherein the at least two side walls have a thickness less than about 1 mm and are flexible so that, when the non-custom dental tray is placed over a person's teeth, the tray can at least partially conform to the person's teeth during use in order to approximate the comfort and fit of a custom dental tray without the need to formally customize the tray; and
a quantity of a dental treatment composition loaded within the trough of the dental tray, the dental treatment composition being sufficiently viscous and sticky so that, when the dental tray is placed over a person's teeth, the dental treatment composition will hold and retain the dental tray over the person's teeth and cause the tray to at least partially conform to the person's teeth.
2. (Previously Presented) A dental treatment device as defined in claim 1, wherein the dental tray includes a front side wall, a rear side wall, and a bottom wall interconnecting the front and rear side walls, wherein the bottom wall is substantially devoid of structures corresponding to the size and shape of a person's unique dentition.

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3. (Previously Presented) A dental treatment device as defined in claim 1, wherein an interior surface of at least one wall of the dental tray is textured so as to include a plurality of indentations, wherein said indentations do not correspond to the size and shape of a person's unique dentition.

4. (Original) A dental treatment device as defined in claim 3, wherein the indentations comprise at least one of a taffeta texture, tiny dimples, or a diamond grid texture.

5. (Original) A dental treatment device as defined in claim 1, wherein the dental tray is sized and configured so as to fit over at least a portion of a person's upper dental arch.

6. (Original) A dental treatment device as defined in claim 1, wherein the dental tray is sized and configured so as to fit over at least a portion of a person's lower dental arch.

7. (Original) A dental treatment device as defined in claim 1, wherein the dental tray is formed from a mixture comprising ethylene vinyl acetate (EVA) and polypropylene (PP).

8. (Original) A dental treatment device as defined in claim 7, wherein the mixture comprises from about 10% to about 30% by weight PP, with the balance consisting essentially of EVA.

9. (Original) A dental treatment device as defined in claim 7, wherein the mixture comprises from about 15% to about 25% by weight PP, with the balance consisting essentially of EVA.

10. (Previously Presented) A dental treatment device as defined in claim 1, wherein the at two side walls of the dental tray have a thickness less than about 0.75 mm.

11. (Previously Presented) A dental treatment device as defined in claim 1, wherein the at two side walls of the dental tray have a thickness less than about 0.5 mm.

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12. (Previously Presented) A dental treatment device as defined in claim 1, wherein one or more of the side walls are contoured to approximately correspond to the curvature of labial or buccal surfaces of a plurality of different person's teeth.

13. (Original) A dental treatment device as defined in claim 1, wherein the dental tray is sized and configured so as to approximately terminate at or near a person's gingival margin when the dental tray is placed over the person's teeth.

14. (Original) A dental treatment device as defined in claim 1, wherein the dental treatment composition comprises at least one of an antimicrobial agent, a remineralizing agent, an anti-tartar, a desensitizing agent, or an anti-plaque agent.

15. (Original) A dental treatment device as defined in claim 1, wherein the dental treatment composition comprises at least one dental bleaching agent.

16. (Original) A dental treatment device as defined in claim 1, wherein the dental treatment composition comprises at least one thickening agent.

17. (Original) A dental treatment device as recited in claim 1, wherein the quantity of a dental treatment composition is loaded within the trough of the dental tray as a bead that rises about two-third the height of the dental tray.

18. (Original) A dental treatment device as recited in claim 1, wherein the dental treatment composition is such that it forms a dry skin on a surface thereof prior to use.

19. (Previously Presented) A dental treatment device as recited in claim 1, wherein the dental treatment device is contained within a sealed package prior to use in order to protect and increase the stability of the dental treatment composition.

20. (Original) A method of treating a person's teeth comprising placing a treatment device according to claim 1 over at least a portion of a person's teeth for a desired time period.

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21. (Previously Presented) A dental bleaching device comprising:

a pre-shaped, non-custom dental tray suitable for placement over at least one of a person's upper or lower dental arches, wherein the dental tray is formed from a thermoplastic material and comprises:

at least two side walls defining a trough and having a substantially horseshoe-shaped configuration at least approximately corresponding to a person's dental arch,

wherein at least one of the two side walls has a textured inner surface,

wherein the at least two side walls are substantially devoid of structures corresponding to the size and shape of a person's unique dentition so that the dental tray is designed to comfortably fit over a plurality of differently-sized dental arches corresponding to different people,

wherein the at least two side walls have a thickness less than about 1 mm and are flexible so that, when the non-custom dental tray is placed over a person's teeth, the tray can at least partially conform to the person's teeth during use in order to approximate the comfort and fit of a custom dental tray without the need to formally customize the tray; and

a quantity of a dental bleaching composition loaded within the trough of the dental tray, the dental bleaching composition being sufficiently viscous and sticky so that, when the dental tray is placed over a person's teeth, the dental treatment composition will hold and retain the dental tray over the person's teeth and cause the tray to at least partially conform to the person's teeth.

22. (Previously Presented) A dental bleaching device as defined in claim 21, wherein the at least two side walls have a thickness less than about 0.5 mm.

23. (Previously Presented) A dental bleaching device as defined in claim 21, wherein one or more of the side walls are contoured to approximately correspond to the curvature of labial or buccal surfaces of a plurality of different person's teeth.

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24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Previously Presented) A dental treatment device as defined in claim 16, wherein the thickening agent comprises at least one of polyvinyl pyrrolidone, carboxypolymethylene, carboxymethyl cellulose, cellulose gum, fumed silica, polyethylene glycol, or polypropylene glycol.
28. (Previously Presented) A dental treatment device as defined in claim 16, wherein the thickening agent comprises at least one tackifying agent that causes the dental treatment composition to be sticky and viscous.
29. (Previously Presented) A dental treatment device as defined in claim 16, wherein the thickening agent comprises a mixture of polyvinyl pyrrolidone and at least one of carboxypolymethylene, carboxymethyl cellulose, or a cellulose gum.
30. (Previously Presented) A dental bleaching device as defined in claim 21, the dental bleaching composition comprising at least one tackifying agent.
31. (Previously Presented) A dental bleaching device as defined in claim 30, the tackifying agent comprising polyvinyl pyrrolidone.
32. (Previously Presented) A dental bleaching device as defined in claim 30, the tackifying agent further comprising at least one of carboxypolymethylene, carboxymethyl cellulose, or a cellulose gum.
33. (Previously Presented) A dental bleaching device as defined in claim 21, the dental bleaching composition having a substantially dry skin on a surface thereof prior to use.

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34. (New) A dental bleaching device as defined in claim 1, wherein the front side wall, rear side wall and bottom wall each have a thickness less than about 0.75 mm.

35. (New) A dental treatment device as defined in claim 21, wherein the dental tray includes a front side wall, a rear side wall, and a bottom wall interconnecting the front and rear side walls, wherein the bottom wall is substantially devoid of structures corresponding to the size and shape of a person's unique dentition.

36. (New) A dental bleaching device as defined in claim 35, wherein the front side wall, rear side wall and bottom wall each have a thickness less than about 0.75 mm.